KV-2093R RM-735 KV-2093R RM-735

SECTION 3

CIRCUIT ADJUSTMENT

3-1. SAFETY RELATED ADJUSTMENTS

H R513 CONFIRMATION METHOD (HOLD-DOWN COMFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ◢ on the schematic diagram).
IC301, Q504, Q505, D504, D510, R515, R507, R513, R514, R517, R533, R537, R559, R526

(1) Preparation before confirmation

1. *Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHTNESS controls to maximum.*
2. *Confirm that the voltage of the TP-85 is more than 13 V dc when the set is operating normally with 120 V ac supply.*

(2) Hold-down operation confirmation

1. *Turn the POWER switch ON, and receive entirely white signals and adjust ABL current to 1500 ±20 μA with PICTURE and BRIGHT etc controls.*
2. *Apply DC voltage of over 13.0 V gradually to the TP85 via 1T40 from the DC stavilized power source. Confirm that the minimum voltage is less than 17.50 V dc whereby the raster disappears during operation of hold-down circuit.*
   Note: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.
3. *Turn the POWER switch ON, and receive dot signals and adjust ABL current to 230 ±5 μA with PICTURE and BRIGHT etc controls.*
4. *Apply DC voltage of over 13.0 V gradually to TP85 via 1T40 from the DC stavilized power source. Confirm that the minimum voltage is less than 18.80 V dc whereby the raster disappears during operation of hold-down circuit.*
   Note: When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

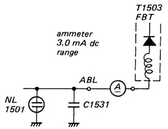
(3) Hold-down readjustment

When step (2) is not satisfied, readjustment should be performed by altering the resistance value of R513 (a component marked with H).

(4) Confirmation of hold-down erroneous operation

1. *Turn the POWER switch ON, and receive dot signals and set the PICTURE and BRIGHTNESS controls to minimum.*
2. *Confirm that the hold-down circuit does not operate by turning the POWER switch ON and OFF repeatedly several times.*
   Note: If the hold-down circuit starts operating in the above case, switch OFF the POWER of the set immediately.
3. *Turn the POWER switch ON, and receive dot signals and entirely white signals and set the PICTURE and BRIGHTNESS controls to maximum.*
4. *Confirm that the hold-down circuit does not operate by performing switchover of the channels of the dot signals and entirely white signals several times.*
   Note: If the hold-down circuit starts operating in the above case, switch OFF the POWER of the set immediately.

5. *If the above-mentioned steps 1 to 4 are not satisfied reconfirm steps (2) to (4) by altering the R513 smaller resistance value (a component marked with H).*



** Use a digital multimeter whose input impedance is over 100 MΩ when confirming the voltage of TP85.*

CONFIRMATION WHEN REPLACING T1503 (FLYBACK TRANSFORMER)

The following adjustments should always be performed with reference to whether an X-ray radiation control circuit is connected or not, when replacing T1503 (FLYBACK TRANSFORMER).

** This check is to be performed when T1503 (FLYBACK TRANSFORMER) only is replaced, and has no relation to the hold-down circuit readjustment for replacement of parts marked ◢.*

(1) Connection confirmation

1. *Turn the POWER switch ON, and receive entirely white signals and set the PICTURE and BRIGHTNESS controls to maximum.*
2. *When the set is operating normally with 120 V ac supply, confirm the voltage of the TP85 is over 13 V dc.*

+B VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC651.

(1) The +B voltage confirmation

1. *Supply 130 $^{+0}_{-5}$ V ac to with variable auto-transformer.*
2. *Receive monoscope signals.*
3. *Set the PICTURE and BRIGHTNESS control to center.*
4. *Confirm the voltage of TP91 is less than 138.6 V dc.*
5. *If step 4 is not satisfied, replace IC651 and repeat above steps.*